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09/556,620	04/21/2000	Kyung-geun Lee	1293.1115/MDS	6772

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EXAMINER

VUONG, BACH Q

ART UNIT PAPER NUMBER

2653

DATE MAILED: 07/16/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/556,620

Applicant(s)

LEE ET AL.

Examiner

Bach Q Vuong

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-25 and 35 is/are allowed.
- 6) ☒ Claim(s) 1-9, 11 and 13-22 is/are rejected.
- 7) ☒ Claim(s) 10, 12, 28, 33 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6, 7.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

This communication is responsive to a letter election filed on 04/11/2003

*Election/Restrictions*

The restriction has been withdrawn in response to Applicant's arguments and all of the claims are now examined in the present application.

*Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.  
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-9, 11, 13-22, 26, 27 and 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda (US 6,272,085).

Maeda, according to Figs. 1-15, shows an optical disk drive comprising all features of the claimed invention as indicated below:

Regarding claim 1, see Figs. 1-15 which show a an optical recording medium to which user data is written and rewritten comprising: basic recording units (see boxes numbered 6 in Fig. 1) in which the user data are seamlessly connected; and a predetermined area (see Figs. 2 or 4, 5A-5B) in which information, which is related to a defective area occurring before the user data is recorded on the optical recording medium or while the optical recording medium is being used, is recorded; wherein a defective area data pattern is

recorded in the defective area during the recording of the user data for seamless recording (see column 5 , line 60 through column 8, line 5).

Regarding claim 2, see the respective disclosure of Figs. 6A-6D which show the optical recording medium further comprising a data identifier (DID) area or data recordable area in which a recording pattern defined by a predetermined rule is recorded to detect a defective area before the user data is recorded on the optical recording medium, and while the user data is being recorded, a physical sector number is recorded in the data identifier area.

Regarding claim 3, see Fig. 6B which shows the optical recording medium wherein the data identifier area stores information for discriminating the user data from the defective area data pattern recorded in a corresponding sector of the optical recording medium.

Regarding 4, see the respective disclosure of Figs. 6A-6B which show the optical recording medium further comprising a data identifier (DID area) or data recordable area to detect a defective area before the user data user area is recorded on the optical recording medium, and while the user data is being recorded, a logical sector number which is not assigned to the detective area is recorded in the data identifier area.

Regarding claim 5, see Figs. 6A-6D which shows the optical recording medium wherein the data identifier area stores information for discriminating the user data from the defective area data pattern recorded in a corresponding sector of the optical recording medium.

Regarding claim 6, see Figs. 14B and 14C which shows the optical recording medium wherein the defective area data pattern is dummy data.

Regarding claim 7, see Figs. 8A-8E which show the optical recording medium wherein the defective area data pattern is the same as data in the part of an area preceding or succeeding the defective area.

Regarding claim 8, see Figs. 7A-7C which show the optical recording medium wherein the defective area data pattern is defined by a drive manufacturing company.

Regarding claim 11, see Fig. 1-4 which show a method of processing a defective area in an optical recording medium to which user data is written and rewritten and in which basic recording units (see Fig. 4) are seamlessly connected, the method comprising: (a) recording a defective area data pattern in the defective area on the optical recording medium to enable seamless recording of the user data during recording of the user data (see boxes numbered 14, 42 and 44 in Fig. 2).

Regarding claim 13, see the rejection applied to claim 6.

Regarding claim 14, see the rejection applied to claim 7.

Regarding claim 15, see the rejection applied to claim 8.

Regarding claim 16, see Figs. 9, 13 and 15 which shows a method of processing a defective area in an optical recording medium further comprising: (b) detecting the defective area occurring before the user data is recorded on the optical recording medium or while the optical recording medium is being used; and (c) recording information related to the detected defective area in a predetermined area on the optical recording medium. (see the rejection applied to claim 2)

Regarding claim 17, see the respective disclosure of Fig. 9 which shows a method of processing a defective area in an optical recording medium wherein the step (b) comprises detecting the defective area before the user data is recorded on the optical recording medium,

by certification, wherein the certification is performed by recording a recording pattern defined by a predetermined rule in a data identifier (DID) area or data recordable area of the optical recording medium.

Regarding claim 18, see Figs. 6A-6D which shows a method of processing a defective area in an optical recording medium wherein the step (a) comprises recording a physical sector number in the data identifier area during the recording of the user data (see the rejection applied to claim 2).

Regarding claim 19, see Fig. 6B which shows a method of processing a defective area in an optical recording medium further storing information for discriminating the user data from the defective area pattern recorded in a corresponding sector in the data identifier area (see the rejection applied to claim 3).

Regarding claim 20, see Fig. 6A-6B which shows a method of processing a defective area in an optical recording medium wherein comprises recording a logical sector number which is not assigned to the defective area in the data identifier area (see the rejection applied to claim 4).

Regarding claim 21, see Figs. 6A-6D which shows a method of processing a defective area in an optical recording medium further comprising storing information for discriminating the user data from the defective area data pattern in a corresponding sector in the data identifier area (see the rejection 3 and 5).

Regarding claims 26 and 27, see Figs. 1-15 which show an optical recording to which user data is written and rewritten comprising: basic recording units (see boxes numbered 6 in Fig. 1) in which the user data are seamlessly connected, and including a defective area; a predetermined area (see Figs. 2 or 4, 5A-5B) which stores information related to a defective

area occurring before the user data is recorded or while the optical recording medium is being used; and a defective area data pattern recorded in the defective area without using a linking scheme (see column 5, line 60 through column 8, line 5).

Regarding claim 29, see the rejection applied to claim 6.

Regarding claim 30, see the rejection applied to claim 7.

Regarding claim 31, see the rejection applied to claim 8.

Regarding claim 32, see the rejection applied to claim 26.

*Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9 and 22 are rejected under U.S.C. 103(a) as being unpatentable over Maeda (US 6,272,085) in view of Hisatomi et al. (US 6,546,192).

Maeda, according to Fig. 1-15, shows all the features of the instant claimed invention (see the rejections above). Awad et al. do not disclose that the recording medium is digital versatile recordable (DVD-R) or digital versatile disc rewritable (DVD-RW). Hisatomi et al., according to Figs. 1-3, shows the recording medium on which information related to the defective area is stored in the a recording management data area is a digital versatile disc recordable (DVD-R). It would have been obvious to one of ordinary skills in the art at the time the invention made to incorporate an optical recording medium of Awad et al. by using DVD-R on which defective are stored management data area as taught by Hisatomi et al. in order to improve of recording data in a different type of disc.

*Allowable Subject Matter*

Claims 10 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10 and 12 are allowable over the prior art of record because all cited references in the record, considered as closest references and viewed in combination or individually, fails to suggest or fairly teach an optical recording medium to which user data is written or rewritten including a combination of basic recording units in which user data are seamlessly connect, and including the limitation as recited in claim 10 or claim 12.

Claim 23-25 are allowed the prior art of record because all the cited references, considered as the closest prior art and viewed in combination or individually, fails to suggest or fairly teach a defective area processing method including a combination of all features as recited in claim 23, lines 1-9. Claims 24 and 25 are allowed with their respective parent claim.

Claim 28 is allowable over the prior art of record because all the cited references, considered as the closest prior art and viewed in combination or individually, fails to suggest or fairly teach an optical recording medium to which user data is written or rewritten including a combination of all features as particularly recited in each of claim 28, lines 1-12.

Claims 33-35 are allowable over the prior art of record because all the cited references, considered as the closest prior art and viewed in combination or individually, fails to suggest or fairly teach a defective area processing method including a combination of all features as recited in each of claims 33-35.



Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Cited References*


The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to a data recording/reproducing apparatus and method which relate to defect sector on a recording medium.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bach Q Vuong whose telephone number is (703) 305-7355. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (703) 305-6137. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

BV  
July 13, 2003

  
**THANG V. TRAN**  
**PRIMARY EXAMINER**